Proposed Action & Design Features

North Valley Trails Project
Scoping

Proposed Action

The proposed action consists of eight new trails or trail segments, one trail re-route, and three trailhead parking or day use area expansions and enhancements across the northern half of the Gunnison Valley. This action would result in approximately nine miles of trail construction and one mile of trail decommissioning. No proposed trails are in Colorado Roadless Areas, Designated Wilderness, or in proposed wildlife management areas in the ongoing Forest Plan Revision.

Additionally, 18.7 acres of disturbance are proposed for expansion of existing parking areas and enhancement of the infrastructure at the Brush Creek Trailhead, Tent City Day Use and Designated Camping Area, and Walrod Trailhead. These disturbance acres include both the existing hardened parking areas and expansion areas.

See Table 1 for a breakdown of the trails and parking areas being proposed.

Table 1. Proposed Action trails and infrastructure.

Action	Use	Length or Area
Lake Irwin Rd. Parallel Trail & Wagon Trail Connector Trail	Non-motorized single track	1.5 miles
Upper Upper to the Brush Creek Trailhead Trail	Non-motorized single track	0.7 miles
Strand Bonus to 409 Trail	Non-motorized single track	0.5 miles
Budd Connection: Ambush to Tent City Trail	Non-motorized single track	0.6 miles
Tent City Connector to NFSR 738.2A Trail	Non-motorized single track	0.5 miles
Teocalli Extension Trail & 409 Connector Spur	Motorized single track	0.4 miles (0.05 miles is existing user created trail, 409 Connector Spur)
Reno Divide Road Parallel Trail	Motorized single track	3.2 miles
Cement Creek Trail: Lower Cement Creek Trail to Caves	Non-motorized single track	0.6 miles
Bear Creek Trail Reroute	Motorized single track	0.0 net gain (1.0 mile new trail construction and 1.0 mile trail decommissioning)
Tent City Day Use Area Expansion and Enhancement	Parking and trailhead access	13.7 acres
Brush Creek Tailhead Parking Expansion and Enhancement	Parking and trailhead access	2.3 acres
Walrod Parking Expansion and Enhancement	Parking and trailhead access	2.7 acres

Trail construction and decommissioning work would be performed by CBMBA and the USDA Forest Service. The single-track trails would be designed for multi-directional traffic and have benched 24-inch tread width constructed with hand tools, chainsaws, trail dozer, mini-excavator, or other similar equipment. Construction would likely require some tree removal and limbing of trees. Trails would be constructed to follow Forest Service Handbook (FSH) 2309.18, Forest Service Manual (FSM) 2350 and International Mountain Bicycling Association (IMBA) guidelines for sustainable trail building.

Trailhead parking and day use area expansions and enhancements would include actions such as, but not limited to, excavation and fill to provide appropriate drainage, graveling where necessary, and installing or replacing toilet facilities and kiosks. All trailhead and infrastructure improvement projects will follow, as appliable, Forest Service Accessibility Guidelines as outlined by the Forest Service Outdoor Recreation Accessibility Guidelines and Forest Service Trail Accessibility Guidelines. Structures would be built according to Forest Service Manual 2380 and the Built Environment Image Guide (BEIG) guidelines in order to preserve scenic integrity.

Implementation would be anticipated to occur over approximately the next 10 years depending on funding and resources.

Design Features by Resource Area

Table 2. Proposed Action Design Features

Design Feature	Source / Ensures Compliance With	Applicable Area/Activity
Trail Construction and Recreation		
To be sustainable, the trail grade will not exceed an overall average of 10%. Trail tread grade may go as high at 15% as long as the overall 10% average is maintained. Trail tread grade should not exceed half the grade of the hillside or side slope that the trail is traversing.	IMBA 2004, Ensures compliance with USDA Forest Service National Strategy for Sustainable Trails System.	All Trails
To ensure proper drainage on trails: • When contouring a hillside, outslope (tilt slightly away from the high side) the trail tread at a 3 to 5% tilt in the direction of the fall line. • Throw excavated topsoil several feet down hill, away from the trail. • Construct grade reversals as a trail snakes across a hillside.	IMBA 2004, Ensures compliance with USDA Forest Service National Strategy for Sustainable Trails System.	All Trails
Construct proper transitions which occur gradually or atop hills to reduce the occurrence of braking bumps and user wrecks.	IMBA 2004, Ensures compliance with USDA Forest Service National Strategy for Sustainable Trails System.	All Trails
When possible, use full bench trail construction (i.e., excavate down and into the hillside to put the entire tread width on mineral soil) rather than half cut/half fill.	IMBA 2004, Ensures compliance with USDA Forest Service National Strategy for Sustainable Trails System.	All Trails
Trail signage must be marked for snowmobilers, so the signs are not hit or a safety hazard.	IDT Professional Judgement based on knowledge of the area.	Wagon Trail Connector and Lake Irwin Road Parallel trails.
Coordinate with Rocky Mountain Biological Laboratory's bee researchers with sites near the Upper Upper to Brush Creek Trailhead trail on road-adjacent tail alignment near research sites.	IDT Professional Judgement	Upper Upper to Brush Creek TH Trail
Botany		
Coordinate with district botanist to conduct surveys for sensitive plants prior to construction. Sensitive and rare plant populations will be flagged and avoided for all ground disturbing activities with a buffer as determined by the district botanist.	FSM 2670 (2670.32), Elliott et. Al. 2011, treatment- specific design (BMP for Plant Concerns)	
Noxious Weeds		
Prevent the accidental spread of invasive species carried by contaminated vehicles, equipment, personnel, or materials. (1) **A** – Equipment and tool cleaning:	(1) USDA Forest Service 2011: FSM 2900.	

Design Feature	Source / Ensures Compliance With	Applicable Area/Activity
• Clean all equipment and tools before arriving at the project area (NFS Lands) to prevent possible introduction on invasive species. Power washing is the most effective method of cleaning heavy equipment. Equipment, tools, and clothing should be free of soil, seeds, vegetation, and other such debris. • (2) Equipment and tool cleaning should be conducted after working in areas with known infestations, and prior to entering the National Forest. **B** – Coordinate with the district weed specialist (Range) to identify known weed infestations and trainings for weed identification to identify unknown weed locations. Locate and use weed-free treatment staging areas. Avoid or minimize all types of travel through weed- infested areas. (3) **C** -- All imported materials (erosion control materials, soil, gravel, etc.) should be from a "weed-free" source or area. (3)	(2) Noxious weeds, that appear on the State of Colorado's noxious weed list (CDA 2020) (3) USDA Forest Service 2001: Noxious Weed Guide	
Retain native vegetation to the extent possible to prevent weed germination and establishment in and around activity area and keep soil disturbance to a minimum.	USDA Forest Service 2001: Noxious Weed Guide	
Report invasive weed presences to district noxious weed specialist (Range Program) to determine the need control and treatment of infestations to prevent treatment-associated spread and proliferation.	USDA Forest Service 2001: Noxious Weed Guide, USDA 1991 LMP (III-39).	
Range		
Coordinate with District Rangeland Management Specialists to identify range improvements for avoidance or mitigation.		
Soil, Water & Fisheries		
Minimize construction or disturbance within 100' of the edge of wetlands and streams (including perennial and intermittent streams) and in wet/moist meadows.	USDA Forest Service 2012 (National BMPs), FSH 2509.25 (12.1), and Professional Judgment	
Minimize the number of times trails cross streams. Co-locate trail routes onto existing roadbeds where feasible to avoid new streams and wetland crossings. If trail construction must cross a lotic (running water) area or linear features (i.e. stream): • Cross where stream banks do not exceed 30% slope • Select stream or wetland crossing at the narrowest section to minimize trail distance across hydro features. • Select a stream crossing that is hardened by gravel, cobble, or bedrock. • Cross where the stream is relatively straight and shallow. • Cross at right angles to the stream. • Use rolling dips or grade reversals on the approach to streams to drain trail runoff into undisturbed soils rather than directly into streams. Use waterbars, ditches and cross drains only when grade reversals and rolling dips are not practical. Schedule maintenance of waterbars, ditches and cross drains to maintain function. • When necessary, use bridges, boardwalks, or other spanning structures. • Use hand tools to construct the trail within the riparian area.	USDA Forest Service 2012 (National BMPs) and Professional judgement	

Design Feature	Source / Ensures Compliance With	Applicable Area/Activity
When rehabilitating abandoned trails, ensure an adequate number of drainage features such as check dams, water-bars and sediment traps, are installed to address minor erosion problems. Re-contour slopes where trails have become entrenched or where there are major erosion problems.	USDA Forest Service 2012 (National BMPs) and Professional Judgement	
Vegetation Management		
Pre-emptive Hazard Tree Felling During trail construction or reconstruction, obvious hazard trees which could fall across the trail should be felled. Boles are to be bucked and removed from the trail (based on trial class and Trail Management Objective (TMO) clearing width per FSM 2350).	Professional Judgement	Where trails pass through stands of trees.
Slash Treatment Limbs are to lopped and scattered to lay within 24-inches of the ground, and logs bucked to lay flat on the ground. Slash should be pulled back from the trail (based on trial class and TMO clearing width per FSM 2350). to reduce injury hazard in case of running off the tread or accident.	Professional Judgement	Anyplace trees are felled during trail construction and reconstruction.
Spruce Bark Beetle Mitigation Where live or green Engelmann spruce are felled during trail construction/reconstruction, boles greater than six inches in diameter need to be treated to avoid the potential for increasing spruce bark beetle populations. • If the green log is buried, or partly buried, in the soil as part of the trail construction (banks or corduroy), the log does not need further treatment. • If the felled live Engelmann spruce is an individual, and other spruce are distant or widely scattered, then bucking the bole into lengths of no more than two feet long should be sufficient to accelerate drying of the green cambium tissue. • Where green Engelmann spruce are prevalent in the area of the trail corridor, and spruce are being felled, then 50% of the green bark needs to be shaved off to accelerate cambium drying and disruption of beetle brood production. Shaving or debarking can be done by chainsaws, axes, or draw knives. **Note:** If spruce bark beetle populations are increasing to epidemic levels in construction locations, consult the silviculturist. Mitigations may no longer be needed due to being ineffective. In which case consider relocating the trail outside of the insect infested stand for safety from hazard trees.	Professional Judgement	Along trail segments where live Engelmann spruce are present.
Tent City Trailhead Tree Planting Tree shade transplant sixty sapling to medium-sized ponderosa pine, Douglas-fir, blue spruce, and lodgepole pine at the parking area, and as rows of screening trees under the existing aspen strips between the parking area and the campground. Planting will provide for parking area delineation and screening for camp sites. Specifics: Transplant five ponderosa pines into the island between the existing trailhead parking and FR 738. Transplant twenty Douglas-fir, blue spruce, and lodgepole pines in the aspen strip west of the campground road between the existing parking area and	Professional Judgement	At the Tent City Trailhead along NFSR 738.

Design Feature	Source / Ensures Compliance With	Applicable Area/Activity
the campground at an average of fifteen-foot spacing in two rows. Transplant fifteen Douglas-fir, blue spruce, and lodgepole pine in the aspen strip east of the campground road in a zig-zag row at an average of ten-foot spacing.		
Wildlife		
Direct mortality to Partners in Flight (PIF) priority species adults on nests and eggs or young within nests will be eliminated by implementing a seasonal restriction on clearing and grubbing of vegetation within the approved project construction areas between March 14 and July 15, where feasible. Coordinate with district wildlife biologist if restriction is not feasible to determine appropriate protection measures.		All
If active raptor nests are identified, coordinate with the district wildlife biologist to determine appropriate protection measures.		All
Where feasible, construct trail below hillside's lower crest toward Farris Road 736, limiting trail user's line of sight up the Strand Hill hillside, to minimize impacts to wildlife security.		Stand Bonus to 409.

References

CDA. 2020. *Colorado Noxious Weed List*. Colorado Department of Agriculture. Retrieved from https://ag.colorado.gov/conservation/noxious-weeds/publications

International Mountain Bicycling Association (IMBA). 2004. *Trail Solutions: IMBA's Guide to Building Sweet Singletrack*. IMBA.

USDA Forest Service. 1991. *Amended Land and Resource Management Plan. Grand Mesa, Uncompahgre, and Gunnison National Forests*; Delta, Colorado.

USDA Forest Service. 2001. *Guide to noxious weed prevention practices*. [Place of publication not stated]: Retrieved from https://www.fs.fed.us/database/feis/pdfs/weeds/GuidetoNoxWeedPrevPractices.pdf

USDA Forest Service. 2005. *Forest Service Manual 2600—Wildlife, Fish, and Sensitive Plant Habitat Management, Chapter 2670—Threatened, Endangered and Sensitive Plants and Animals*. National Headquarters (WO).

USDA Forest Service. 2006. *Forest Service Handbook 2509.25—Watershed Conservation Practices Handbook: Chapter 10 Management Measures and Design Criteria.* National Headquarters (WO).

USDA Forest Service. 2011. *Forest Service Manual 2900--Invasive Species Management.* Rocky Mountain Region (Region 2) Denver, CO.

USDA Forest Service. 2012. *National Best Management Practices for Water Quality Management on National Forest System Lands—Volume 1: National Core MBP Technical Guide.* National Headquarters (WO): Biological and Physical Resources. Retrieved from: https://www.fs.fed.us/biology/resources/pubs/watershed/FS_National_Core_BMPs_April2012.pdf